

Welding Process(es)

GTAW + SMAW

Type

MANUAL + MANUAL

Joint Design Used	Pass No.	Process	Electrode Class	Size (mm)	Amp. (A)	Volt (V)	Travel Speed (MMPM)
	1	GTAW	ER70S-2	2.4	102.6	11.7	69
	2	GTAW	ER70S-2	2.4	147.1	12.1	75
	3	GTAW	ER70S-2	2.4	147.0	12.8	49
	4	SMAW	E7018	3.2	88.8	24.9	54
	5	SMAW	E7018	3.2	89.8	24.8	50
	6	SMAW	E7018	3.2	90.1	24.9	70
	7	SMAW	E7018	3.2	89.9	25.0	65
	8	SMAW	E7018	3.2	118.1	25.4	142
	9	SMAW	E7018	3.2	124.9	26.4	74
	10	SMAW	E7018	3.2	122.8	24.9	123
	11	SMAW	E7018	3.2	121.8	25.1	131
	12	SMAW	E7018	3.2	92.4	25.7	103
	13	SMAW	E7018	4.0	93.0	25.8	109
	14	SMAW	E7018	4.0	95.1	25.0	117
	15	SMAW	E7018	4.0	94.4	25.0	121
	16	SMAW	E7018	4.0	88.8	25.0	105
	17	SMAW	E7018	4.0	90.7	25.2	158

BASE METALS (QW-403)

Material Spec.	ASTM A106
Type or Grade	Gr.B
P-No 1 Gr. No. 1 to P-No 1 Gr. No. 1	
Thickness of Test Coupon	21.94 mm
Diameter of Test Coupon	6 Inch
Max. Thickness per Pass	GT: 2.0 mm SM: 3.5

POST WELD HEAT TREATMENT (QW-407)

Temperature	640°C
Time	75 min
Other	NONE

GAS (QW-408)

	Gas(es)	Percent Composition	Flow Rate
Shielding	Argon	99.997%	10~15ℓ/min
Trailing	N/A	N/A	N/A
Backing	N/A	N/A	N/A

FILLER METALS (QW-404)

SFA Specification	GT: 5.18 SM: 5.1
AWS Classification	GT: ER70S-2 SM: E7018
Weld Metal Analysis A-No.	1
Size of Electrode	GT: 2.4mm SM: 3.2 & 4.0mm
Filler Metal F-No.	GT: 6 SM: 4
Deposit Weld Metal	GT: 5.97 mm SM: 17.1
Brand Name	GT: OK Tigrod 12.62 SM: OK 48.00

ELECTRICAL CHARACTERISTICS (QW-409)

Current	GT: DC SM: DC
Polarity	GT: EN SM: EP
Other	NONE

TECHNIQUE (QW-410)

String or Weave Bead	BOTH
Oscillation	NONE
Multipass or Single Pass	MULTIPASS
Single or Multiple Electrodes	SINGLE
Others	NONE

POSITION (QW-405)

Position of Groove	6G
Weld Progression	UPHILL

PREHEAT (QW-406)

Preheat Temp.	27°C
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